## **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application.

## **Listing of Claims:**

1. (Original) A photo-alignment material having a photo-reactive ethenyl group on a polymer main chain, wherein the polymer is in accord with chemical formula 1:{chemical formula 1}

$$-[A]_{\underline{\mathbf{a}}}[B]_{\underline{\mathbf{b}}}[C]_{\underline{\mathbf{c}}}$$

wherein subscripts a, b, and c denote a component ratio of respective monomers, wherein  $0 < a \le 1$ ,  $0 \le b < 1$ , and  $0 \le c < 1$ , and wherein component A is a monomer including a photo-reactive ethenyl group selected from groups designated in chemical formula 2, substituted-structure groups of chemical formula 2 having a halogen, a cyano, a nitro, an amino group, and other substituted-structure groups with an alkyl, a haloalkyl, and a cyanoalkyl group having 1 to 10 carbons, or an aryl, an alkyl, an aryl, a haloaryl, a haloalkyl aryl, a nitroaryl, and a cyanoaryl group having 3 to 8 carbons;

## {Chemical Formula 2}

2. (Original) The photo-alignment material of claim 1, wherein components B and C are selected independently from groups shown in chemical formula 3, substituted-structure groups of chemical formula 3 with a halogen, a cyano, a nitro, an amino group, other substituted-structure groups with carbonated groups of which carbon number n lies between 1 and 10 such as an alkyl, a haloalkyl, and a cyanoalkyl, and other carbonated groups of which carbon number lies between 3 and 8 such as an alkylaryl, a haloaryl, a haloalkylaryl, a nitroaryl, and a cyanoaryl;

{Chemical Formula 3}

Claims 3-32 (Canceled).

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$$-[A]_a[B]_b[C]_c$$

wherein subscripts a, b, and c denote a component ratio of respective monomers, wherein  $0 < a \le 1, 0 \le b < 1$ , and  $0 \le c < 1$ ;

wherein component A is a monomer having a photo-reactive ethenyl group of formula 2, and the monomer having a photo-reactive ethenyl group of formula 2 can be substituted with at least one selected from the group consisting of a halogen, a cyano, a nitro, an amino group, an alkyl, a haloalkyl, a cyanoalkyl group having 1 to 10 carbons, an aryl, an alkyl, a haloaryl, a haloalkyl aryl, a nitroaryl, and a cyanoaryl group having 3 to 8 carbons;

wherein forumula 2 is selected from a group consisting of: {Formula 2}

wherein component B and C are monomers having a non-photosensitive component of formula 3, and the monomers having a non-photosensitive component of formula 3 can be substituted with at least one selected from the group consisting of a halogen, a cyano, a nitro, an

amino group, alkyl, a haloalkyl, a cyanoalkyl, alkylaryl, a haloaryl, a haloalkylaryl a nitroaryl, a cyanoaryl;

wherein formula 3 is selected from a group consisting of:
{Formula 3}

$$\begin{array}{c} \text{(CH$_{\overline{z}}$)}_n, \quad -0-, \quad -\text{COO}-, \quad -\text{NHCO}-\\ \\ \text{CH}_3 \\ -\text{NHCO}-, \quad -\text{CH}_2\text{CHCO}-\\ \\ \text{(CH}_2\text{O)}_{\overline{n}}, \quad \text{(CH}_2\text{CH}_2\text{O)}_{\overline{n}}, \quad \text{(CH}_2\text{)}_n\text{O}-\\ \\ \hline \\ \begin{array}{c} \text{CH}_2 \\ \\ \end{array} \\ \begin{array}{c} \text{O} \\ \end{array} \\$$

Claim 34 (Canceled).